



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: July 11, 2005

RE: Kitchen Quip, Inc. / 033-20386-00093

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.in.gov/idem

July 11, 2005

Mr. Steve Sparling
Kitchen Quip, Inc.
P.O. Box 548
Waterloo, IN 46793

Re: Exempt Construction and Operation Status,
033-20386-00093

Dear Mr. Sparling:

The application from Kitchen Quip, Inc. - Building 2, received on November 17, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following food products machinery manufacturing source, located at 675 East US 6, Waterloo, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Four (4) zinc die-cast machines, identified as P-2 through P-5, constructed in 1996, capacity: 1.0 million British thermal unit of natural gas per hour, each, and 150 pounds per hour of zinc, total.
- (b) One (1) zinc melt pot furnace, identified as P-1, constructed in 1996, exhausting through stack 1, capacity: 1.0 million British thermal unit of natural gas per hour and 300 pounds per hour of zinc.
- (c) Nine (9) aluminum melt pots, identified as P-7 through P-15, constructed in 1996, capacity: 1.0 million British thermal unit of natural gas per hour, each, and 150 pounds per hour of aluminum, total.
- (d) One (1) aluminum melt furnace, identified as P-16, constructed in 1996, exhausting through stack 2, capacity: 1.0 million British thermal unit of natural gas per hour and 150 pounds per hour of aluminum.
- (e) One (1) natural gas-fired evaporator, identified as E-1, constructed in 1996, heat input capacity: 0.35 million British thermal units per hour.
- (f) Two (2) natural gas-fired space heaters, identified as H-14 and H-15, constructed in 1982, heat input capacity: 0.2 million British thermal units per hour, each.
- (g) Five (5) natural gas-fired space heaters, identified as H-16 through H-20, constructed in 1982, heat input capacity: 0.06 million British thermal units per hour, each.

The following condition shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following:
- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by
Kathy Moore, Section Chief
Permits Branch
Office of Air Quality

CAP/MES

cc: File - DeKalb County
DeKalb County Health Department
Air Compliance - Doyle Houser
Northern Regional Office
Permit Tracking
Compliance Data Section

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Kitchen Quip, Inc. - Building 2
Source Location:	675 East US 6, Waterloo, IN 46793
County:	DeKalb
SIC Code:	3363
Exemption No.:	033-20386-00093
Permit Reviewer:	CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed an application from Kitchen Quip, Inc. relating to the operation of a food products machinery manufacturing source.

Source Definition

Kitchen Quip, Inc. operates two (2) sources in Waterloo, Indiana:

- (a) Building 1 is located at 405 East Marion Street, Waterloo; and
- (b) Building 2 is located at 675 East US 6, Waterloo.

The two (2) sources have the same SIC codes and are owned by one (1) company. However, they are not on contiguous or adjacent properties, do not have a physical connection between the two (2) buildings other than public roads, none of the output from either plant is sent to the other plant for further processing, and the buildings have different plant managers responsible for day to day operations. Therefore, they are not considered one (1) source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted emission units and pollution control equipment.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

- (a) Four (4) zinc die-cast machines, identified as P-2 through P-5, constructed in 1996, capacity: 1.0 million British thermal unit of natural gas per hour, each, and 150 pounds per hour of zinc, total.
- (b) One (1) zinc melt pot furnace, identified as P-1, constructed in 1996, exhausting through stack 1, capacity: 1.0 million British thermal unit of natural gas per hour and 300 pounds per hour of zinc.
- (c) Nine (9) aluminum melt pots, identified as P-7 through P-15, constructed in 1996, capacity: 1.0 million British thermal unit of natural gas per hour, each, and 150 pounds per hour of aluminum, total.
- (d) One (1) aluminum melt furnace, identified as P-16, constructed in 1996, exhausting through stack 2, capacity: 1.0 million British thermal unit of natural gas per hour and 150 pounds per hour of aluminum.

- (e) One (1) natural gas-fired evaporator, identified as E-1, constructed in 1996, heat input capacity: 0.35 million British thermal units per hour.
- (f) Two (2) natural gas-fired space heaters, identified as H-14 and H-15, constructed in 1982, heat input capacity: 0.2 million British thermal units per hour, each.
- (g) Five (5) natural gas-fired space heaters, identified as H-16 through H-20, constructed in 1982, heat input capacity: 0.06 million British thermal units per hour, each.

New Emission Units and Pollution Control Equipment

There are no new emission units proposed at this time.

Existing Approvals

There are no existing approvals for this source.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 17, 2004, with additional information received on May 6, June 7 and June 14, 2005.

Emission Calculations

See Appendix A of this document for detailed emission calculations (3 pages).

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	1.45
PM ₁₀	1.71
SO ₂	1.68
VOC	3.61
CO	5.91
NO _x	8.15

HAPs*	Potential to Emit (tons/yr)
Formaldehyde	0.005
Hexane	0.127
Total	0.133

* Negligible amounts of other individual HAPs are emitted from this source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of the combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM _{2.5}	attainment
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment

Pollutant	Status
1-Hour Ozone	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) DeKalb County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions.
- (c) DeKalb County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	1.45
PM ₁₀	1.71
SO ₂	1.68
VOC	3.61
CO	5.91
NO _x	8.15
Single HAP	0.127
Combination HAPs	0.133

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.

- (b) The emissions in this table are the unrestricted potential emissions from the source.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one-hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per year.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.
- (c) This source is an aluminum die casting facility that melts only clean charge and does not operate sweat furnaces, thermal chip dryers or scrap dryers/delacquering kilns/decoating kilns. Therefore, pursuant to 40 CFR 63.1503, it is not a secondary aluminum production facility. Thus, the requirements of 40 CFR 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, are not included in the approval for this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not located in Lake or Porter County with the potential to emit greater than twenty-five (25) tons per year of NO_x, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The unrestricted potential emissions of each attainment criteria pollutant are less than two-hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this food products machinery manufacturing source will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

There are no boilers at this source. Therefore, the requirements of 326 IAC 6-2 are not applicable.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The unrestricted potential particulate emissions from each facility at this source are less than 0.551 pounds per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 are not applicable.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The potential SO₂ emissions from this source are less than ten (10) pounds per hour and twenty-five (25) tons per year. Therefore, this source is not subject to the requirements of 326 IAC 7-1.1.

326 IAC 11-1 (Existing Foundries)

The foundry operations at this source were not in operation on or before December 6, 1968. Therefore, the requirements of 326 IAC 11-1 are not applicable.

Conclusion

The operation of this food products machinery manufacturing source shall be subject to the conditions of the **Exemption 033-20386-00093**.

Appendix A: Secondary Metal Production
Aluminum

Page 1 of 3 TSD App A

Company Name: Kitchen Quip, Inc. - Building 2
Address City IN Zip: 675 East US 6, Waterloo, Indiana 46793
Exemption: 033-20386
Plt ID: 033-00093
Reviewer: CarrieAnn Paukowits
Application Date: November 17, 2004

SCC# 3-04-008-03
Zinc Melt Furnace

TYPE OF MATERIAL	LBS/HR	1 TON/2000 lbs	TON/HR			
Zinc	300	2000	0.15			
	PM * lbs/ton Produced 0.1	PM10 * lbs/ton Produced 0.09	SOx lbs/ton Produced --	NOx lbs/ton Produced --	VOC * lbs/ton Produced 2.4	CO lbs/tons Produced --
Potential Emissions lbs/hr	0.015	0.014	--	--	0.4	--
Potential Emissions lbs/day	0.360	0.324	--	--	8.6	--
Potential Emissions tons/year	0.066	0.059	--	--	1.58	--

SCC# 3-04-008-73
Die Casting

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Zinc	150	2000	0.075			
	PM lbs/ton metal charged 0.015	PM10 lbs/ton metal charged 0.015	SOx * lbs/ton metal charged --	NOx * lbs/ton metal charged --	VOC * lbs/ton metal charged --	CO lbs/tons metal charged --
Potential Emissions lbs/hr	0.001	0.001	--	--	--	--
Potential Emissions lbs/day	0.027	0.027	--	--	--	--
Potential Emissions tons/year	0.005	0.005	--	--	--	--

SCC# 3-04-001-02
Aluminum Melt Furnace

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	150	2000	0.075			
	PM * lbs/ton metal produced 1.9	PM10 * lbs/ton metal produced 1.7	SOx lbs/ton metal produced 2.50	NOx lbs/ton metal produced 1.70	VOC lbs/ton metal produced 2.50	CO lbs/tons metal produced --
Potential Emissions lbs/hr	0.143	0.128	0.188	0.128	0.188	--
Potential Emissions lbs/day	3.42	3.06	4.5	3.1	4.5	--
Potential Emissions tons/year	0.62	0.56	0.82	0.56	0.82	--

SCC# 3-04-001-02
Aluminum Melt Pots

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	150	2000	0.075			
	PM * lbs/ton metal produced 1.9	PM10 * lbs/ton metal produced 1.7	SOx lbs/ton metal produced 2.50	NOx lbs/ton metal produced 1.70	VOC lbs/ton metal produced 2.50	CO lbs/tons metal produced --
Potential Emissions lbs/hr	0.143	0.128	0.188	0.128	0.188	--
Potential Emissions lbs/day	3.42	3.06	4.5	3.1	4.5	--
Potential Emissions tons/year	0.62	0.56	0.82	0.56	0.82	--

Totals

	PM	PM10	SOx	NOx	VOC	CO
Emissions (tons/yr)	1.32	1.18	1.64	1.12	3.22	0.00

* Note: Emission factor is from FIRE version 6.25.

Emission factors which are not denoted by a "***" are from older versions of FIRE and were not included in FIRE version 6.01 or later versions for various reasons.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Page 2 of 3 TSD App A

**Company Name: Kitchen Quip, Inc. - Building 2
Address City IN Zip: 675 East US 6, Waterloo, Indiana 46793
Exemption: 033-20386
Plt ID: 033-00093
Reviewer: CarrieAnn Paukowits
Application Date: November 17, 2004**

		Pollutant				
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emissions in tons/yr					
			PM*	PM10*	SO2	NOx	VOC	CO
Four (4) Die Cast Machines	4.00	35.04	0.033	0.133	0.011	1.752	0.096	1.472
One (1) Zinc Melt Furnace	1.00	8.76	0.008	0.033	0.003	0.438	0.024	0.368
Nine (9) Aluminum Melt Pots	9.00	78.84	0.075	0.300	0.024	3.942	0.217	3.311
One (1) Aluminum Melt Furnace	1.00	8.76	0.008	0.033	0.003	0.438	0.024	0.368
Evaporator	0.35	3.066	0.003	0.012	0.001	0.153	0.008	0.129
Two (2) space heaters	0.40	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Five (5) space heaters	0.30	2.628	0.002	0.010	0.001	0.131	0.007	0.110
Total	16.05	141	0.134	0.534	0.042	7.03	0.387	5.91

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 3 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Page 3 of 3 TSD App A

Company Name: Kitchen Quip, Inc. - Building 2
Address City IN Zip: 675 East US 6, Waterloo, Indiana 46793
Exemption: 033-20386
Plt ID: 033-00093
Reviewer: CarrieAnn Paukowits
Application Date: November 17, 2004

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.0750	Hexane 1.8000	Toluene 0.0034
Potential Emission in tons/yr	0.0001	0.0001	0.005	0.127	0.0002

HAPs - Metals

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total HAPs
Potential Emission in tons/yr	0.00004	0.0001	0.0001	0.00003	0.0001	0.133

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.